

Access DB# 64800SEARCH REQUEST FORM
Scientific and Technical Information Center

(91)

Requester's Full Name: Archives Laufer Examiner# : _____ Date: 4-16-02
Art Unit: 2100 Phone Number: 30 Serial Number: 101021783
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): Paper Disk E-mail

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

6,105,030

STAFF USE ONLY

Searcher: S Green
Searcher Phone: 6-4767
Searcher Location: 4B40
Date Searcher Picked Up: 4-19-02
Date Completed: 4-18-02
Searcher Prep & Review Time: _____
Clerical Prep Time: _____
Online Time: _____

Type of search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation ☒
Full Text _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN _____
Dialog _____
Questel/Orbit ☒ 26.41
Dr. Link _____
Lexis/Nexis ☒
Sequence System _____
WWW/Internet ☒
Other (specify) _____

Green, Shirelle

From: Laufer, Pinchus
Sent: Tuesday, April 16, 2002 9:49 AM
To: Green, Shirelle
Subject: Litigation searches

Please generate litigation searches for the following cases:

- | | | | |
|---------------------------------------------------|------------------------------------|-------------------------------------|--------------------------|
| (1) 10/020,425 | (2) 10/020,427 | (3) 10/017,973 | (4) 10/017,965 |
| each of which is a Reissue of US patent 5,761,301 | | | Inventors: Oshima et al. |
| (5) 09/972,707 | Reissue of US patent no. 5,961,621 | Inventors: William Cupertino et al. | |
| (6) 09/990,327 | Reissue of US patent no. 5,991,749 | Inventors: Paul H. Morrill | |
| (7) 09/932,284 | Reissue of US patent no. 5,935,201 | Inventors: Raffaele Costa et al. | |
| (6) 10/021,783 | Reissue of US patent no. 6,105,030 | Inventors: Nadeem Syed et al. | |

Thank you,

Pinchus

Pinchus M. Laufer, Ph.D.
Special Programs Examiner, Technology Center 2100
Computer Architecture, Software, & Electronic Commerce
US Patent and Trademark Office
(703) 306-4160
plaufer@uspto.gov

1 of 3 DOCUMENTS

6,105,030

GET 1st DRAWING SHEET OF 10

Aug. 15, 2000

Method and apparatus for copying data that resides in a
database

REISSUE:

Reissue Application filed Dec. 13, 2001 (O.G. Apr. 9, 2002) Ex. Gp.: 2171;
Re. S.N. 10/021,783

INVENTOR:

Syed, Nadeem, Castro Valley, California
Robson, Kurt, Foster City, California

ASSIGNEE-AT-ISSUE:

Oracle Corporation, Redwood Shores, California (02)

APPL-NO:

32,095

FILED:

Feb. 27, 1998

INT-CL:

[7] G06F 17#30

US-CL:

707#10; 707#2

SEARCH-FLD:

707#1-10, 100-104, 200-206, 500-542; 705#1-11

PRIM-EXMR:

Ho, Ruay Lian

LEGAL-REP:

McDermott, Will & Emery

SUM:

FIELD OF THE INVENTION

The present invention relates to the copying of data and more specifically to
producing a copy of data that resides in a database.

BACKGROUND OF THE INVENTION

Planning software is used by manufacturers to aid in the manufacturing process. Based upon the desired product output and the components needed for each product, the planning software generates a schedule of what components need to be manufactured and by when, and what materials need to be procured and by when. This schedule is generated based upon data stored in a database. The planning process is often complicated and, for complex products, can take many hours to complete.

A typical requirement imposed by the planning software is that it needs to do its processing based on a single consistent version of the database. If one process of the planning software is reading one version of the database while another process is reading an updated version of the database, serious errors, such as double counting, can occur. As a result, planning software requires that data be provided from a single frozen version of the database in order to operate properly.

As is well known, a database or a selected subset thereof can be frozen by obtaining exclusive locks on all of the tables in the database or the selective subset. Once locked, the tables can be processed by the planning software to carry out the planning process. However, as noted above, the planning process can take many hours to complete. Many companies, especially those having offices around the world, cannot afford to lock their tables for extended periods of time. Hence, locking tables in this manner is often not a viable solution.

Another possible solution is to simply make a copy of the database prior to running the planning software. The problem with this solution is that for large databases, the copying process itself can take several hours. During this time, the tables need to be locked to ensure a frozen state. As long as the tables are locked, no updates can be made. Hence, this solution suffers from the same shortcomings, albeit to a lesser degree, as the locking solution.

Based on the foregoing, it is clearly desirable to provide a mechanism for obtaining a single frozen version of the database, or a subset thereof, without locking tables in the database for an extended period of time.

SUMMARY OF THE INVENTION

According to one aspect of the invention, a method and apparatus for supplying a consistent set of data to a software application is provided.

According to the method, a software application is launched that requires a particular set of data contained in a first database. Once the particular set of data is identified, a first process is requested to obtain a snapshot time from a database server associated with the first database. The snapshot time causes all subsequent reads of the first database by the first process to return data that reflects a database state associated with the snapshot time. After the first process obtains the snapshot time, the first process extracts the particular set of data from the first database. The software application is then supplied with the particular set of data that was extracted from the first database.

In one embodiment, a second process is used to store the particular set of data that was extracted into a second database.

According to another aspect of the invention, a method and apparatus for producing a copy of data from a first database is provided.

According to the method, a first set of data in the first database is locked. After locking the first set of data, a plurality of processes are requested to obtain snapshot times from a database server associated with said first database. The snapshot times cause all subsequent reads of the first database by the plurality of processes to return data from the first database as of the snapshot times. After waiting a particular period of time for the plurality of processes to be assigned snapshot times, the locks on the first set of data in the first database are released.

The plurality of processes that were successful in obtaining a snapshot time within the particular period of time are used to extract a copy of the first set of data from the first database. The copy of the first set of data is then separately stored from the first of data.

No Documents Found

No documents were found for your search (**6105030** or **6,105,030**). Please edit your search and try again. You may want to try one or more of the following:

- Check for spelling errors.
- Remove some search terms.
- Use more common search terms.
- If applicable, look for all dates.

Edit Search

[About LexisNexis](#) | [Terms and Conditions](#)

Copyright © 2002 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

LEXIS-NEXIS
Library: PATENT
File: CASES

No Documents Found

No documents were found for your search (6105030 or 6,105,030). Please edit your search and try again. You may want to try one or more of the following:

- Check for spelling errors.
- Remove some search terms.
- Use more common search terms.
- If applicable, look for all dates.

Edit Search

[About LexisNexis](#) | [Terms and Conditions](#)

Copyright © 2002 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

LEXIS-NEXIS
Library: PATENT
File: JNLS

?us6105030/pn

** SS 5: Results 1

Search statement 6

?prt full nonstop legalall

1/1 PLUSPAT - (C) QUESTEL-ORBIT

PN - US6105030 A 20000815 [US6105030]

TI - (A) Method and apparatus for copying data that resides in a database

PA - (A) ORACLE CORP (US)

IN - (A) SYED NADEEM (US); ROBSON KURT (US)

AP - US3209598 19980227 [1998US-0032095]

PR - US3209598 19980227 [1998US-0032095]

IC - (A) G06F-017/30

PCL - ORIGINAL (O) : 707010000; CROSS-REFERENCE (X) : 707002000

DT - Basic

CT - US5168444; US5560005; US5724575

STG - (A) United States patent

AB - A consistent set of data is supplied to a software application from databases. When a particular set of data is identified, a first process is requested to obtain a snapshot time from a database server associated with the first database. The snapshot time causes all subsequent reads of the first database by the first process to return data that reflects a database state associated with the snapshot time. A first set of data in the first database is locked in order to produce a copy of data from a first database. After locking the first set of data, a plurality of processes are requested to obtain snapshot times from a database server associated with the first database. The snapshot times cause all subsequent reads of the first database by the plurality of processes to return data from the first database as of the snapshot times.

UP - 2000-35

1/1 LGST - (C) LEGSTAT

PN - US 6105030 [US6105030]

AP - US 32095/98 19980227 [1998US-0032095]

DT - US-P

ACT - 19980227 US/AE-A

APPLICATION DATA (PATENT)

{US 32095/98 19980227 [1998US-0032095]}

- 20000815 US/A

PATENT

UP - 2000-36

1/1 CRXX - (C) CLAIMS/RRX

PN - 6,105,030 A 20000815 [US6105030]

PA - Oracle Corp

ACT - 20011213 REISSUE REQUESTED

ISSUE DATE OF O.G.: 20020409

REISSUE REQUEST NUMBER: 10/021783

EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2171

Reissue Patent Number:

1/1 PAST - (C) PAST
AN - 200215-001694
PN - 6105030 A [US6105030]
OG - 2002-04-09
ACT - REISSUE APPLICATION FILED

fam us6105030/pn

1 Patent Groups
** SS 6: Results 1

Search statement 7

?famstate nonstop

1/1 INPADOC - (C) INPADOC

PN - US 6105030 A 20000815 [US6105030]

TI - METHOD AND APPARATUS FOR COPYING DATA THAT RESIDES IN A DATABASE

IN - SYED NADEEM [US]; ROBSON KURT [US]

PA - ORACLE CORP [US]

AP - US 32095/98-A 19980227 [1998US-0032095]

PR - US 32095/98-A 19980227 [1998US-0032095]

IC - G06F-017/30

1/1 LEGALI - (C) LEGSTAT

PN - US 6105030 [US6105030]

AP - US 32095/98 19980227 [1998US-0032095]

DT - US-P

ACTE- 19980227 US/AE-A

APPLICATION DATA (PATENT)

{US 32095/98 19980227 [1998US-0032095]}

- 20000815 US/A

PATENT

UP - 2000-36